



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/503,917	02/15/2000	Hideo Hoshuyama	105404	7275
25944	7590	03/18/2004		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320				

EXAMINER
AGGARWAL, YOGESH K

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/503,917

Applicant(s)

HOSHUYAMA ET AL.

Examiner

Yogesh K Aggarwal

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-11,13-24 is/are rejected.
- 7) ☒ Claim(s) 6,7 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Ueda (US Patent # 5,485,202).

[Claim 1]

Ochi teaches the following:

An electronic camera (figure 5:1b) comprising;

an image-capturing device (figure 5: 11) for photographing that captures an image of a subject image passing through a taking lens (figure 5: 30a) and outputs image data (col. 3 lines 6-11);

an image-capturing device for scene analysis (figure 5: 12) that is provided at a position conjugate with said image capturing device (figure 5: 11) for photographing relative to said taking lens (figure 5: 30a) and receives light from the subject image to output scene analysis image data (col. 3 lines 12-14);

Ochi fails to teach the following: a gain calculation unit that calculates gain by using at least either image data corresponding to a large area of said image-capturing device for scene analysis or image data corresponding to a small area of said image-capturing device for scene analysis; and a gain adjustment unit that performs gain adjustment by applying said gain calculated at said gain calculation unit to the image data output by said image capturing device for photographing.

However Ueda teaches that it is well known and used in the art to have a gain calculation unit

Art Unit: 2615

(figure 1: 8, WB Control circuit can be read as a white balance gain calculation circuit) that calculates gain by using at least either image data corresponding to a large area (figure 2c) of said image-capturing device for scene analysis or image data corresponding to a small area (figure 2d) of said image-capturing device for scene analysis (col. 1 lines 63-67, col. 2 lines 1-14); and a gain adjustment unit (figure 1: 7) that performs gain adjustment by applying said gain calculated at said gain calculation unit to the image data output by said image capturing device for photographing (col. 2 lines 11-14). Therefore taking the combined teachings of Ochi and Ueda it is obvious to one skilled in the art to have a gain calculation unit that calculates gain by using at least either image data corresponding to a large area of said image-capturing device for scene analysis or image data corresponding to a small area of said image-capturing device for scene analysis; and a gain adjustment unit that performs gain adjustment by applying said gain calculated at said gain calculation unit to the image data output by said image capturing device for photographing. Doing so would allow having an arrangement, which can control and adjust white balance gain as taught in Ueda (col. 1 lines 6-9).

[Claim 2]

An electronic camera according to claim 1, wherein:

said large area is constituted of a plurality of first areas obtained by dividing the image-capturing area of said image-capturing device for scene analysis, into a unit area including a first specific number of pixels (Ueda, figure 2(c) discloses a plurality of areas having a first specific number of pixels in a unit area);

and said small area is constituted of a plurality of second areas achieved by dividing the image-capturing area of said image-capturing device for scene analysis into a unit area including

Art Unit: 2615

a second specific number of pixels which is smaller than the first specific number (Ueda, figure 2(d) discloses a plurality of areas having a second specific number of pixels in a unit area smaller than the first specific number);

[Claim 3]

An electronic camera according to claim 1, wherein: said gain calculation unit (Ueda, figure 1: 8, WB Control circuit can be read as a white balance gain calculation circuit) selects image data of either said large area or said small area in correspondence to the type of subject and calculates gain based on the image data in the selected area (Ueda, col. 1 lines 11-15, The gain is calculated based on luminance (Y1) or color difference of a subject).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Ueda (US Patent # 5,485,202) as applied to claim 2 above in further view of Hirata (US Patent # 5,210,600).

[Claim 4]

Ochi in view of Ueda teach the limitations of claim 2 but fails to teach “a decision-making unit that makes a decision as to whether or not there is an area having image data that are judged to indicate an achromatic color among said plurality of first areas and further makes a decision as to whether or not there is an area having image data judged to indicate skin color among said plurality of second areas if it is decided that there is no area with image data judged to indicate an achromatic color, wherein: if said decision-making unit decides that there is an area having image data that are judged to indicate an achromatic color, said gain calculation unit calculates gain based upon the image data in said area having the image data judged to indicate an achromatic color ; and if said decision-making unit decides that there is an area having image

Art Unit: 2615

data that are judged to indicate skin color, said gain calculation unit calculates gain based upon the image data in said area having the image data indicating skin color. However Hirata teaches that it is well known and used in the art that a decision-making unit (figure 1: 6) that makes a decision as to whether or not there is an area having image data that are judged to indicate an achromatic color among said plurality of first areas and further makes a decision as to whether or not there is an area having image data judged to indicate skin color among said plurality of second areas if it is decided that there is no area with image data judged to indicate an achromatic color (col. 8 lines 9-28), wherein: if said decision-making unit (figure 1: 6) decides that there is an area having image data that are judged to indicate an achromatic color (col. 8 lines 9-28), said gain calculation unit (figure 1: 6) calculates gain based upon the image data in said area having the image data judged to indicate an achromatic color (col. 13 lines 60-68, col. 14 lines 1-19); and if said decision-making unit (figure 1: 6) decides that there is an area having image data that are judged to indicate skin color (col. 8 lines 9-28), said gain calculation unit (figure 1: 6) calculates gain based upon the image data in said area having the image data indicating skin color (col. 8 lines 9-28, col. 13 lines 60-68, col. 14 lines 1-19). Therefore taking the combined teachings of Ochi, Ueda and Hirata it would have been obvious to one skilled in the art at the time of the invention to modify Ochi in view of Ueda to have the above limitations. Doing so would reduce the amount of time it takes for the color conversion process as taught in Hirata (col. 7 lines 22-24).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Hirata (US Patent # 5,210,600)

[Claim 5]

Art Unit: 2615

Ochi teaches the following:

An electronic camera (figure 5:1b) comprising;

an image-capturing device (figure 5: 11) for photographing that captures an image of a subject image passing through a taking lens (figure 5: 30a) and outputs image data (col. 3 lines 6-11);

an image-capturing device for scene analysis (figure 5: 12) that is provided at a position conjugate with said image capturing device (figure 5: 11) for photographing relative to said taking lens (figure 5: 30a) and receives light from the subject image to output scene analysis image data (col. 3 lines 12-14);

Ochi fails to teach the following: a detection unit that detects an area having image data that are judged to indicate a predetermined color in image data corresponding to a predetermined area of said image-capturing device for scene analysis; a gain calculation unit that calculates gain based upon a color indicated by the image data in said area detected by said detection unit; and a gain adjustment unit that performs gain adjustment by applying said gain calculated by said gain calculation unit to the image data output by said images capturing device for photographing .

However Hirata teaches that it is well known and used in the art to have a detection unit (figure 1: 6) that detects an area having image data that are judged to indicate a predetermined color in image data corresponding to a predetermined area of said image-capturing device for scene analysis (col. 8 lines 9-28); a gain calculation unit (figure 1: 6) that calculates gain based upon a color indicated by the image data in said area detected by said detection unit (col. 13 lines 60-68, col. 14 lines 1-19); and a gain adjustment unit (figure 1: 6) that performs gain adjustment by applying said gain calculated by said gain calculation unit to the image data output by said images capturing device for photographing (col. 13 lines 60-68, col. 14 lines 1-19). Therefore

Art Unit: 2615

taking the combined teachings of Ochi and Hirata it would have been obvious to one skilled in the art at the time of the invention to modify Ochi to have the above limitations incorporated into Ochi as taught by Hirata. Doing so would reduce the amount of time it takes for the color conversion process as taught in Hirata (col. 7 lines 22-24).

5. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Hirata (US Patent # 5,210,600) as applied to claim 5 above in further view of Ueda (US Patent # 5,900,860).

[Claims 8-10]

Ochi in view of Hirata teach the limitations of claim 5 but fails to teach “a selection unit that selects either a first photographing mode suited to white balance adjustment performed by using an achromatic color or a second photographing mode suited to white balance adjustment performed by using skin color, wherein: a color to be detected by said detection unit is selected in correspondence to a photographing mode selected by said selection unit and gain is calculated by using image data indicating the selected color”. However Ueda teaches that it is well known and used in the art that a selection unit that selects either a first photographing mode suited to white balance adjustment performed by using an achromatic color or a second photographing mode suited to white balance adjustment performed by using skin color (col. 9 lines 37-45, figure 6: 20, CPU 102)[First photographing mode is treated as landscape mode and second mode as portrait mode]; wherein: a color to be detected by said detection unit is selected in correspondence to a photographing mode selected by said selection unit and gain is calculated by using image data indicating the selected color”. (Figure 13 discloses CPU 102 performs color correction based on the color selected, which can be read as color balancing or white balance

Art Unit: 2615

gain calculation and adjusting unit). Therefore taking the combined teachings of Ochi, Hirata and Ueda it would have been obvious to one skilled in the art at the time of the invention to modify Ochi in view of Hirata to have the above limitations as taught by Ueda. Doing so would provide an improved color-conversion device, which can automatically correct its color conversion function as taught in Ueda (col. 3 lines 15-20).

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Hirata (US Patent # 5,210,600).

[Claim 11]

Ochi teaches the following:

An electronic camera (figure 5:1b) comprising;

an image-capturing device (figure 5: 11) for photographing that captures an image of a subject image passing through a taking lens (figure 5: 30a) and outputs image data (col. 3 lines 6-11);
an image-capturing device for scene analysis (figure 5: 12) that is provided at a position conjugate with said image capturing device (figure 5: 11) for photographing relative to said taking lens (figure 5: 30a) and receives light from the subject image to output scene analysis image data (col. 3 lines 12-14);

Ochi fails to teach the following: a conversion unit that converts image data in a predetermined area of said image-capturing device for scene analysis to color data in either a first color-related coordinate system or a second color-related coordinate system; a gain calculation unit that calculates gain based upon the color data resulting from conversion performed by said conversion unit; and a gain adjustment unit that performs gain adjustment by applying said gain calculated by said gain calculation unit to the image data output by said image capturing device

Art Unit: 2615

for photographing. However Hirata teaches that it is well known and used in the art that a conversion unit that converts image data in a predetermined area of said image-capturing device for scene analysis to color data in either a first color-related coordinate system or a second color-related coordinate system (col. 11 lines 15-25); a gain calculation unit (figure 1: 6) that calculates gain based upon the color data resulting from conversion performed by said conversion unit (col. 13 lines 60-68, col. 14 lines 1-19); and a gain adjustment unit (figure 1: 6) that performs gain adjustment by applying said gain calculated by said gain calculation unit to the image data output by said image capturing device for photographing (col. 13 lines 60-68, col. 14 lines 1-19). Therefore taking the combined teachings of Ochi and Hirata it would have been obvious to one skilled in the art at the time of the invention to modify Ochi to have the above limitations as taught in Hirata. Doing so would reduce the amount of time it takes for the color conversion process as taught in Hirata (col. 7 lines 22-24).

7. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Hirata (US Patent # 5,210,600) as applied to claim 11 above in further view of Ueda (US Patent # 5,900,860).

[Claim 13-15]

Ochi in view of Hirata teach the limitations of claim 11 but fails to teach “a selection unit that selects either a first photographing mode suited to white balance adjustment performed by using an achromatic color or a second photographing mode suited to white balance adjustment performed by using skin color wherein: said conversion unit converts the image data in the predetermined area of said image-capturing device for scene analysis to color data in the first coordinate system or the second coordinate system in correspondence to the photographing mode

Art Unit: 2615

selected by said selection unit . However Ueda teaches that it is well known and used in the art that a selection unit that selects either a first photographing mode suited to white balance adjustment performed by using an achromatic color or a second photographing mode suited to white balance adjustment performed by using skin color (col. 9 lines 37-45, figure 6: 20, CPU 102)[First photographing mode is treated as landscape mode and second mode as portrait mode], wherein: said conversion unit converts the image data in the predetermined area of said image-capturing device for scene analysis to color data in the first coordinate system or the second coordinate system in correspondence to the photographing mode selected by said selection unit (col. 8 lines 34-36, figure 8). Therefore taking the combined teachings of Ochi, Hirata and Ueda it would have been obvious to one skilled in the art at the time of the invention to modify Ochi in view of Hirata to have the above limitations as taught by Ueda. Doing so would provide an improved color-conversion device, which can automatically correct its color conversion function as taught in Ueda (col. 3 lines 15-20).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Hirata (US Patent # 5,210,600) in further view of Ueda (US Patent # 5,485,202).

[Claim 16]

Ochi teaches the following:

An electronic camera (figure 5:1b) comprising;

an image-capturing device (figure 5: 11) for photographing that captures an image of a subject image passing through a taking lens (figure 5: 30a) and outputs image data (col. 3 lines 6-11);

Art Unit: 2615

an image-capturing device for scene analysis (figure 5: 12) that is provided at a position conjugate with said image capturing device (figure 5: 11) for photographing relative to said taking lens (figure 5: 30a) and receives light from the subject image to output scene analysis image data (col. 3 lines 12-14);

Ochi fails to teach the following: a conversion unit that converts image data in a plurality of first areas achieved by dividing an image capturing area of said image-capturing device for scene analysis into a unit area including a first specific number of pixels, to color data in a first color-related coordinate system or converts image data in a plurality of second areas achieved by dividing the image-capturing area of said image-capturing device for scene analysis into a unit area including a second specific number of pixels, to color data in a second color-related coordinate system ; a gain calculation unit that calculates gain using the color data in the first coordinate system or the second coordinate system resulting from conversion performed by said conversion unit ; and a gain adjustment unit that performs gain adjustment by applying said gain calculated by said gain calculation unit to the image data output by said image capturing device for photographing. However Hirata teaches that it is well known and used in the art to have a conversion unit that converts image data in a plurality of first areas achieved by dividing an image capturing area of said image-capturing device for scene analysis into a unit area including a first specific number of pixels, to color data in a first color-related coordinate system or converts image data in a plurality of second areas achieved by dividing the image-capturing area of said image-capturing device for scene analysis into a unit area including a second specific number of pixels, to color data in a second color-related coordinate system (col. 11 lines 15-25); a gain calculation (figure 1: 6) unit that calculates gain using the color data in the first coordinate

Art Unit: 2615

system or the second coordinate system resulting from conversion performed by said conversion unit (col. 13 lines 60-68, col. 14 lines 1-19); and a gain adjustment unit (figure 1: 6) that performs gain adjustment by applying said gain calculated by said gain calculation unit to the image data output by said image capturing device for photographing (col. 13 lines 60-68, col. 14 lines 1-19). Therefore taking the combined teachings of Ochi and Hirata it is obvious to one skilled in the art to have the above limitations incorporated into Ochi as taught in Hirata. Doing so would allow having an arrangement, which can control and adjust white balance gain as taught in Hirata (col. 1 lines 6-9). Ochi in view of Hirata fails to teach that the second number of pixels is less than the first number of pixels. However these limitations are well known in the art as disclosed in Ueda (figure 2(d) discloses a plurality of areas having a second specific number of pixels in a unit area less than the first number of pixels as disclosed in figure 2(c)). Therefore taking the combined teachings of Ochi, Hirata and Ueda it would have been obvious to one skilled in the art to have second number of pixels less than the first number of pixels in order would to have an arrangement, which can control and adjust white balance gain as taught in Ueda (col. 1 lines 6-9).

9. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Hirata (US Patent # 5,210,600) in further view of Ueda (US Patent # 5,485,202) as applied to claim 16 above in further view of Ueda (US Patent # 5,900,860).

[Claims 17-19]

Ochi in view of Hirata in further view of Ueda '202 teach the limitations of claim 16 but fails to teach "a selection unit that selects either a first photographing mode suited to white balance

Art Unit: 2615

adjustment performed by using an achromatic color or a second photographing mode suited to white balance adjustment performed by using skin color wherein: said conversion unit converts said scene analysis image data to color data in the first coordinate system or the second coordinate system in correspondence to the photographing mode selected by said selection unit . However Ueda '860 teaches that it is well known and used in the art that a selection unit that selects either a first photographing mode suited to white balance adjustment performed by using an achromatic color or a second photographing mode suited to white balance adjustment performed by using skin color (col. 9 lines 37-45, figure 6: 20, CPU 102)[First photographing mode is treated as landscape mode and second mode as portrait mode], wherein: said conversion unit converts the said scene analysis image data to color data in the first coordinate system or the second coordinate system in correspondence to the photographing mode selected by said selection unit (col. 8 lines 34-36, figure 8). Therefore taking the combined teachings of Ochi, Hirata, Ueda '202 and Ueda '860 it would have been obvious to one skilled in the art at the time of the invention to modify Ochi in view of Hirata in further view of Ueda '202 to have the above limitations as taught by Ueda '860. Doing so would provide an improved color-conversion device, which can automatically correct its color conversion function as taught in Ueda '860 (col. 3 lines 15-20).

10. Claims 20, 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Yamamoto et al. (US Patent # 5,541,649).

[Claim 20]

Ochi teaches the following:

An electronic camera (figure 5:1b) comprising;

Art Unit: 2615

an image-capturing device (figure 5: 11) that captures an image of a subject image passing through a taking lens (figure 5: 30a) and outputs image data (col. 3 lines 6-11); a color temperature detection unit (figure 4: 15) that is provided at a position conjugate with said image-capturing device relative to the taking lens and receives light of the subject image to detect color temperature information [It is obvious to one skilled in the art that the color temperature detection unit is provided at a position conjugate with said image-capturing device in the camera];

Ochi fails to teach the following: a gain calculation unit that detects skin color based on the color temperature information detected by said color temperature detection unit for a predetermined area in a photographic field to calculate gain by using the skin color; and a gain adjustment unit that performs gain adjustment by applying said gain calculated at said gain calculation unit to the image data output by said image capturing device. However Yamamoto teaches that it is well known and used in the art to have a gain calculation unit (figure 1: 4) that detects skin color based on the color temperature information detected by said color temperature detection unit for a predetermined area in a photographic field to calculate gain by using the skin color (col. 7 lines 11-14); and a gain adjustment unit (figure 1: 4) that performs gain adjustment by applying said gain calculated at said gain calculation unit to the image data output by said image capturing device (figure 1 is a white balance gain adjustment process in which the white balance gain calculator 4 also adjusts gain calculated at said gain calculation unit as taught in col. 1 lines 44-48). Therefore taking the combined teachings of Ochi and Yamamoto it would have been obvious to one skilled in the art at the time of the invention to modify Ochi to have the above

Art Unit: 2615

limitations as taught by Yamamoto. Doing so would prevent the false evaluation of chromatic signals as achromatic signals as taught in Yamamoto (col. 2 lines 22-25).

[Claim 23]

An electronic camera according to claim 20, further comprising: a photometering unit (Yamamoto, figure 1: 7) that detects a brightness level of the subject image in a plurality of areas in the photographic field (Yamamoto, col. 4 lines 25-28); and a photometering area selection unit that selects a photometering area where a photometering operation is to be performed by said photometering unit among the plurality of areas, wherein: said gain calculation unit (Yamamoto, figure 1: 4) detects skin color based on the color temperature information detected by said color temperature detection unit for the photometering area selected by said photometering area selection unit to calculate gain using the skin color (Yamamoto, col. 7 lines 11-14).

[Claim 24]

An electronic camera according to claim 20, wherein: said gain calculation unit calculates gain based upon a predetermined color if the skin color cannot be detected (col. 7 lines 9-14)[Based on yellow and green the gain can be calculated].

11. Claims 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US Patent # 5,764,285) in view of Yamamoto et al. (US Patent # 5,541,649) as applied to claim 20 above in further view of Sugiura et al. (JP Patent # 406121332A).

[Claim 21]

Art Unit: 2615

Ochi in view of Yamamoto teaches the limitations of claim 20 but fails to teach “a focal point detection unit that detects a focal adjustment state of the taking lens in a plurality of areas within the photographic field; a focal point detection area selection unit that selects a detection area in which detection is performed by said focal point detection unit among the plurality of areas; and a lens drive unit that drives the taking lens to a focus position based upon the focal adjustment state detected by said focal point detection unit , wherein: said gain calculation unit detects skin color based on the color temperature information detected by the color temperature detection unit for the detection area selected by said focal point detection area selection unit to calculate gain using the skin color”. However Sugiura teaches that it well known in the art to have a focal point detection unit that detects a focal adjustment state of the taking lens in a plurality of areas within the photographic field [The abstract discloses an auto-focus]; a focal point detection area selection unit that selects a detection area in which detection is performed by said focal point detection unit among the plurality of areas [A specific area is detected for auto-focusing]; and a lens drive unit that drives the taking lens to a focus position based upon the focal adjustment state detected by said focal point detection unit [Official Notice is taken of the fact that it is common to do focus adjustment by driving a lens unit in order to bring the object in focus], wherein: said gain calculation unit detects skin color based on the color temperature information detected by the color temperature detection unit for the detection area selected by said focal point detection area selection unit to calculate gain using the skin color” .[The abstract teaches that the automatic gain control unit calculates gain using by detecting a skin-color or a human face in a particular area which is also used for focus adjustment]. Therefore taking the combined teachings of Ochi and Sugiura it would have been obvious to one skilled in the art at the time of the

Art Unit: 2615

invention to modify Ochi to have the above limitations as taught by Sugiura. Doing so would prevent an erroneous recording when a person is not projected during a remote control photographing as evidenced in Sugiura (Abstract).

[Claim 22]

An electronic camera according to claim 21, wherein: said gain calculation unit calculates gain by using the skin color detected at a point in time at which said lens drive unit completes the focal adjustment drive and said gain adjustment unit performs gain adjustment by applying the gain to the image data output by said image-capturing device [Abstract].

Allowable Subject Matter

4. Claims 6, 7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

a) As for claim 6, the prior art of record does not teach or fairly suggests presence of an area having image data judged to indicate an achromatic color among a plurality of first areas achieved by dividing an image-capturing area of said image-capturing device for scene analysis into a unit area including a first specific number of pixels; and (2) presence of an area having image data judged to indicate skin color among a plurality of second areas achieved by dividing the image-capturing area of said image-capturing device for scene analysis into a unit area including a second specific number of pixels which is smaller than the first specific number

b) Claim 7 is dependent upon claim 6.

Art Unit: 2615

c) As for claim 12, the prior art of record does not teach or fairly suggests a conversion unit converts;

(1) image data in a plurality of first areas achieved by dividing an image-capturing area of said image-capturing device for scene analysis into a unit area including to a first specific number of pixels, to color data in the first coordinate system; and

(2) converts image data in a plurality of second areas achieved by dividing the image-capturing area of said image-capturing device for scene analysis into a unit area including a second specific number of pixels that is smaller than the first specific number, to color data in the second coordinate system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K Aggarwal whose telephone number is (703) 305-0346. The examiner can normally be reached on M-F 9:00AM-5: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary examiner, Vu Le can be reached (703) 308-6613. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

YKA
March 5, 2004


VU LE
PRIMARY EXAMINER